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## Patent Abstracts of Japan

PUBLICATION NUMBER : 55050221  
PUBLICATION DATE : 11-04-80

APPLICATION DATE : 09-10-78  
APPLICATION NUMBER : 53124316

APPLICANT : TOKUDA SEISAKUSHO LTD;

INVENTOR : KURIYAMA NOBORU;

INT.CL. : G02F 1/133 C03C 17/22 C23C 15/00 G09F 9/00 H01B 1/00

TITLE : FORMING METHOD FOR CORROSION RESISTANT TRANSPARENT CONDUCTIVE FILM

ABSTRACT : PURPOSE: To obtain the good corrosion resistant transparent conductive film of low resistance value by sputtering the material comprising  $Ta_2O_5$  at 1~10wt% to  $TiO_2$  in the atmosphere added with  $O_2$  so as to have a partial pressure of 0.1~10% in Ar gas.

CONSTITUTION: The material comprising adding  $Ta_2O_5$  at 1~10wt% (about 6wt% to obtain the lowest resistance value) to  $TiO_2$  is used as a target material. This material is sputtered in an atmosphere comprising adding  $O_2$  to Ar gas so as to have a partial pressure of 1 to 0.1~10% (about 4% in order to obtain the minimum resistance value), whereby the corrosion-resistant transparent conductive film is obtained. In this way, the high resistance value, poor reproducibility and difficulty in practicable use in the case of  $TiO_2$  alone are solved by addition of  $Ta_2O_5$  and the conductive film of superior corrosion resistance and heat resistance used for liquid crystal display device, etc. is obtained.

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